Practical Conservation Biology

by David Lindenmayer and Mark Burgman

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Mention the subject 'conservation biology' and the names of two of the best practitioners — David Lindenmayer and Mark Burgman spring to mind. As the title of their new book suggests, this work focuses on 'how to do practical conservation biology'. Much of the book is aimed at an Australian audience, making use of examples from this country. The authors chose to take an Australian perspective for two reasons. The first reason was that there are few texts that deal adequately with the conservation of the Australian environment. The second reason lay with the uniqueness of the Australian continent and its resources

The book has been structured in such a way that it can be read either from start to finish, or by dipping into selected sections of interest. It is divided into four broad sections: (1) principles for conservation: (2) impacts; (3) methods of analysis; and (4) management principles for conservation. The first two sections deal with general principles and are thus appropriate for introductory studies. Topics covered in these sections include: Why conserve? What should be conserved? Conservation status: changes in the physical environment: genetic diversity, harvesting natural populations: habitat loss and fragmentation: and demands of the human population. The concepts are both explained and illustrated, using a wide range of current, relevant Australian examples from published sources. Use of local examples here really helps the Australian student or practitioner relate to the text.

The last two sections of the book present more advanced information. The third section delves into methods of analysis for conservation biology. This will be of relevance to those people using analytical methods to solve problems in conservation biology. The topics covered here include: measuring genetic variation; habitat analysis; reserve design; bioclimatic modelling; measuring diversity; monitoring; statistical power;



indicators; and risk assessment. The final section of the book examines some general themes in conservation biology, particularly as they relate to ecologically sustainable development. The chapter builds up general arguments for conservation and provides a rationale for the focus on sound scientific practices in conservation biology.

Lindenmayer and Burgman have produced an exemplary text for both students and practitioners in the local context. The book's exploration of modern conservation biology is supported throughout by numerous case studies, with a focus that is predominantly Australian. That said, the methods and lessons from the case studies are widely relevant and can be usefully compared and applied to conservation studies elsewhere. My only concern about the book is that the text is aimed at the advanced undergraduate, and may not be appropriate for first year students. The methods that are introduced for detecting and solving conservation problems assume familiarly with basic knowledge of conservation concepts and practical statistics.

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